

# Work Order ID 55862

February 3, 2010 1:10:24 PM



Page 1

Item ID: D4005-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Aft Restraint Angle/Fuel Gutter

Start Date: 2/03/10 Start Qty: 2.00



Cust Item ID:

Required Date: 2/10/10 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

*[Signature]*

Date: 10-203

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D4005

~~A-PRELIM~~

*[Signature]* New Rev A

100

0.00



Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: PRE

Prog Rev: Lim

2-Deburr if necessary

RB 10-2-4

(2)

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

RB 10-2-4

PRELIMINARY ISSUED

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 55862

February 3, 2010 1:10:24 PM



Page 2

Item ID: D4005-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Aft Restraint Angle/Fuel Gutter

Start Date: 2/03/10 Start Qty: 2.00



Cust Item ID:

Required Date: 2/10/10 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

⇒ 810102/04

(42)

130

Bend as per dwg

0.00



Brake NC

Memo

0.00

Brake NC

810102/09

(2)

140 5

QC5 inspect work to correct stop 810102/09

(42)

150

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

BR 10-02-10

(2)

155

Mo. 08.25

powder coat as per dwg

start 1:00pm  
oven temp 320°F  
finish: 1:30pm

BR 10-2-10.

x2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			





**NOTE:** Date & initial all entries



# Work Order ID 55862




February 3, 2010 1:10:24 PM



Page 3

Item ID: D4005-1 Accept  Setup Start   
Revision ID: Stop   
Item Name: Aft Restraint Angle/Fuel Gutter  
Start Date: 2/03/10 Start Qty: 2.00  Cust Item ID:  
Required Date: 2/10/10 Req'd Qty: 2.00  Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  QC Quality Control	QC5- Inspect part completeness to step on W/O QC3 Memo	0.00 0.00		10-02-10		(X2)	0		
170  Packaging Packaging	Identify as per dwg & Stock Location: Memo	0.00 0.00							
180  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

POSITIVE RECALL

EFFECTIVE 1002-03 AUTH

RELEASED DATE


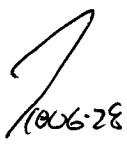
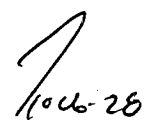

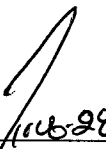

1006-28

QTY2

MF  
10-2-14

W/O: 55862

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
1006-28	161	Install abrasion strip 02856-100-11 per drawing Rev. A B 37 638 - QCS - Schedule 20		10/11/09 10-11-09	2	 1006-28	 1006-28
		add above info per drawing Rev. A				 1006-28	 1006-28

Part No: D4005-1 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:

## WORK ORDER NON-CONFORMANCE (NCR)

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date &amp; initial all entries

# Picklist Print

February 3, 2010 1:10:29 PM

Page 1

Work Order ID: 55862



Parent Item: D4005-1



Parent Item Name: Aft Restraint Angle/Fuel Gutter

Start Date: 2/03/10

Required Date: 2/10/10

Comments: IPP rev A 10.01.21 new issue Prelim EC verified by:DD

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

M2024T3S.063

Purchased

No

100

sf

214.3696

0.2902



2024-T3 .063 sheet

13 10-2-4

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

MAT

214.3696242

102942

1.5

105916

1.09

109463

0.00947368

110980

5.4854

111787

12.2847505

113866

96

113867

96

19059

2

2

113866

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

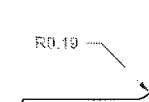
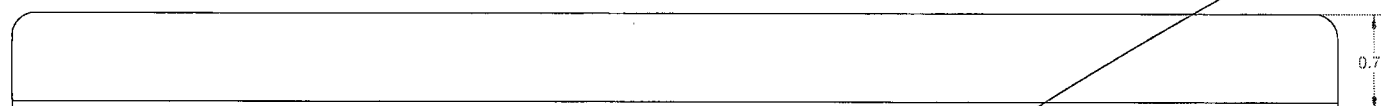
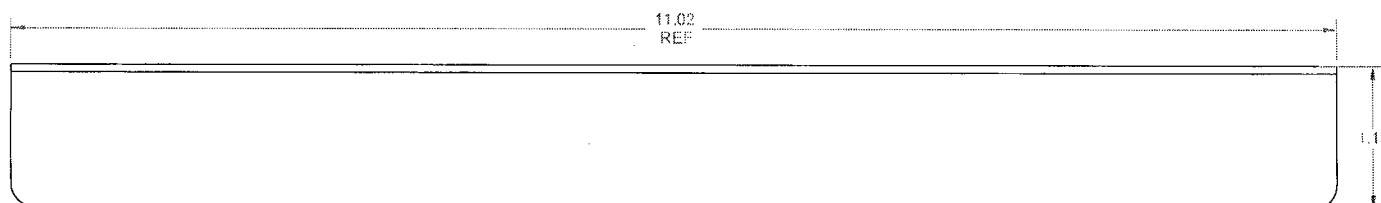
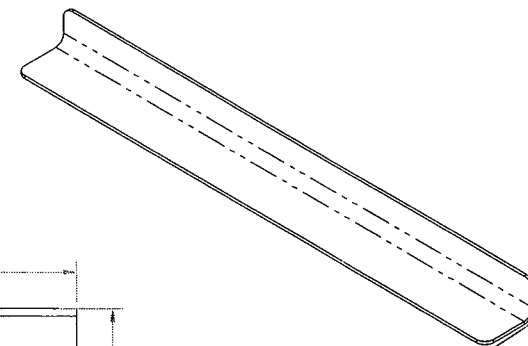
**NOTE:** Date & initial all entries





DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4005-1	JCA-M47-2-03

W/C  
55862



See Rev A

# **D4005-1 AFT RESTRAINT ANGLE/FUEL GUTTER**

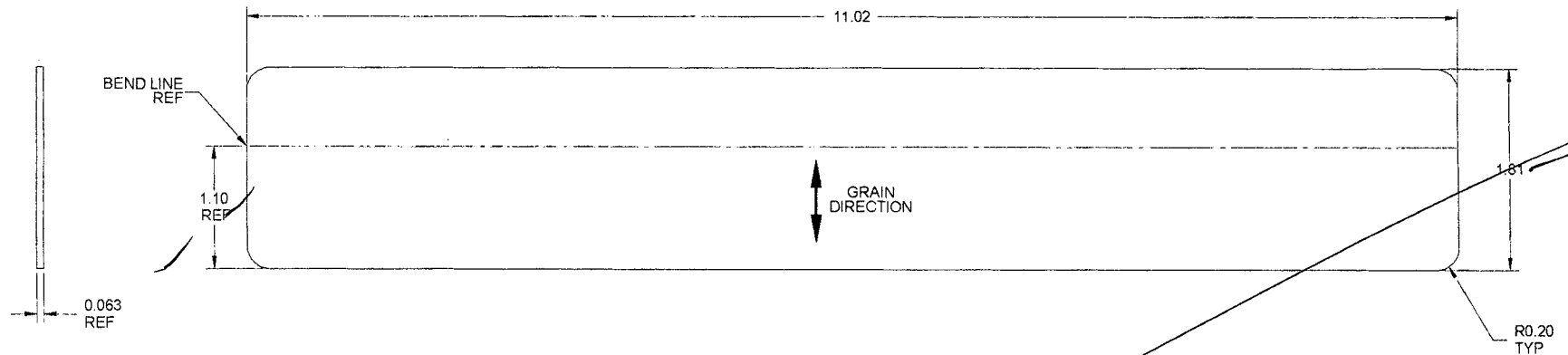
**PRELIMINARY ISSUE**

09.10.19

## **NOTES:**

- 1) MATERIAL: MADE FROM D4005-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4005-1" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.12 lbs

DESIGN		<b>DART AEROSPACE LTD</b>
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. REV. PA1
MFG. APPR.		<b>D4005</b> SHEET 2 OF 15
APPROVED		TITLE SCALE
DE APPR.		<b>FORWARD RESTRAINT</b> NTS
DATE	09.10.19	COPYRIGHT © 2005 BY DART AEROSPACE LTD
		THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



**D4005-1F FLAT PATTERN**

*See Rev A*

**NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK  
PER QQ-A-250/4 OR AMS-QQ-A-250/4  
OR AMS 4037 OR ASTM B209  
REF DART SPEC M2024T3S.063
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.12 lbs

**PRELIMINARY ISSUE**

09.10.19

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		<b>D4005</b>	SHEET 3 OF 15
APPROVED		TITLE	SCALE
DE APPR.		<b>FORWARD RESTRAINT</b>	NTS
DATE	09.10.19	<small>COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4005-1	JCA-M47-2-03

D

D

C

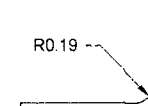
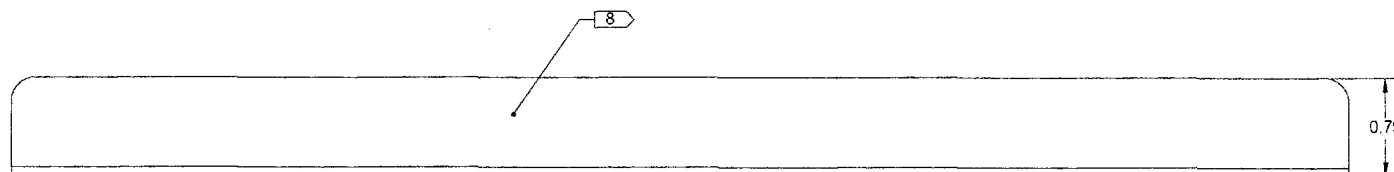
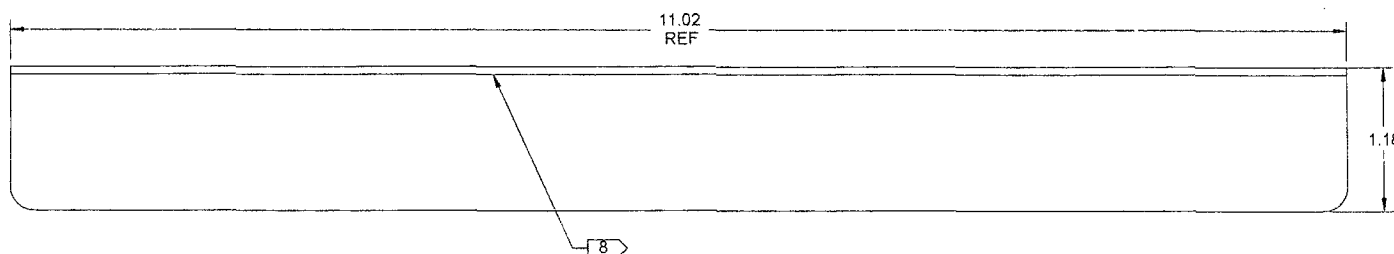
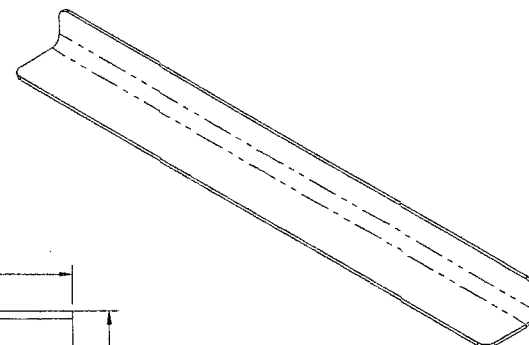
C

B

B

A

A



# **D4005-1 REAR RESTRAINT ANGLE GUTTER**

See Rev A

## **NOTES:**

- 1) MATERIAL: MADE FROM D4005-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "GREY SANDTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4005-1" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.12 lbs
- 8) COVER THIS SURFACE WITH D2856-100-11 ABRASION STRIP. TRIM EXCESS

DESIGN  
DRAWN  
CHECKED  
MFG. APPR.  
APPROVED  
DE APPR.  
DATE 10.02.05

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.

**D4005**

TITLE

**RESTRAINT**

COPYRIGHT © 2010 BY DART AEROSPACE LTD

THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

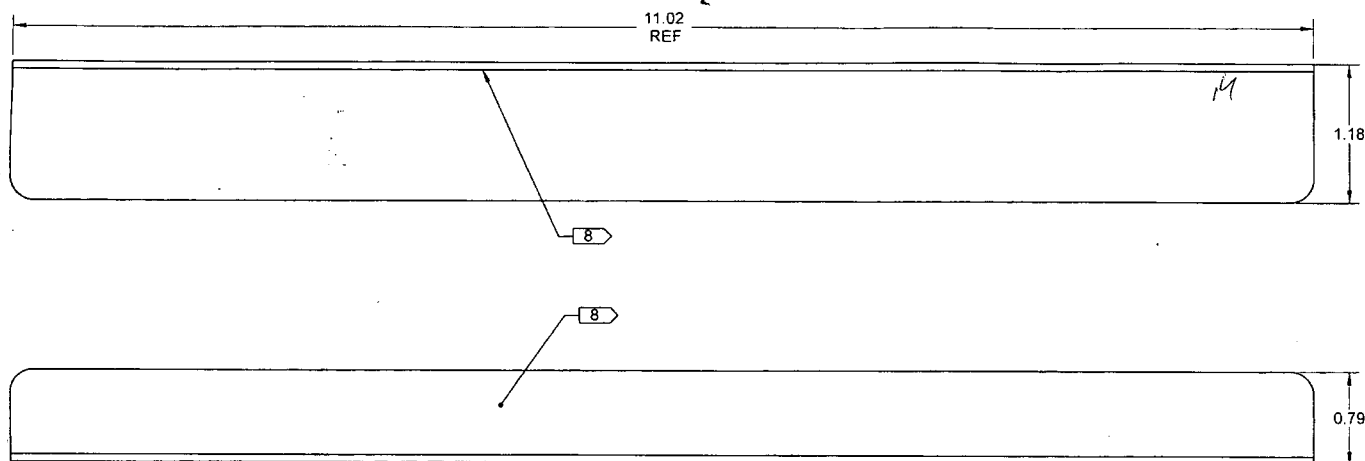
REV. A

SHEET 2 OF 15

SCALE

NTS

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4005-1	JCA-M47-2-03



# **D4005-1 REAR RESTRAINT ANGLE GUTTER**

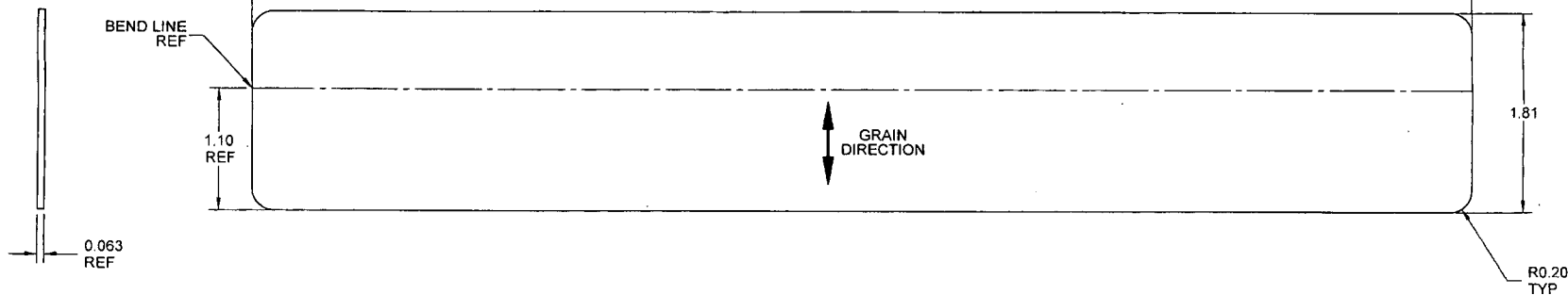
**RELEASED**  
R 2010-05-05  
WJ

## **NOTES:**

- 1) MATERIAL: MADE FROM D4005-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "GREY SANDEXT" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4005-1" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.12 lbs
- 8) COVER THIS SURFACE WITH D2856-100-11 ABRASION STRIP. TRIM EXCESS

W1055862

DESIGN		<b>DART AEROSPACE LTD</b>
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. <b>D4005</b> REV. A
MFG. APPR.		SHEET 2 OF 15
APPROVED		TITLE <b>RESTRAINT</b> SCALE
DE APPR.		NTS
DATE	<b>10.02.05</b>	COPYRIGHT © 2010 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		



# **D4005-1F FLAT PATTERN**

W10 55862

RELEASED  
2010-05-05  
MP

## **NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK  
PER QQ-A-250/4 OR AMS-QQ-A-250/4  
OR AMS 4037 OR ASTM B209  
REF DART SPEC M2024T3S.063
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.12 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4005	SHEET 3 OF 15
APPROVED		TITLE	SCALE
DE APPR.		RESTRAINT	NTS
DATE	10.02.05	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	